



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,524	06/07/2001	Jacobus Haartsen	040071-497	9238

7590

03/30/2004

Ronald L. Grudziecki
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

PEREZ, ANGELICA

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 03/30/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/876,524

Applicant(s)

HAARTSEN, JACOBUS

Examiner

Angelica M. Perez

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dicker (Dicker et al.; US Patent No.: 6,625,466 B1) in view of Young (Young et al.; US Patent No.: 6,240,077 B1).

Regarding claims 1, 8 and 15, Dicker teaches of a portable device (figure 1, item 2) comprising a receiver (figure 1, item 7) and a control unit (figure 1, item 2; where it is inherent in the art of mobile devices possessing a control unit); computer program (column 12, lines 11-16; where the computer system comprises the means for executing the method) and a method of allocating resources to a communication channel between a transmitter and a receiver (figure 1, items 6 and 7 corresponding to "transmitter" and "receiver"; column 3, lines 26-36); comprising the steps of: at the receiver, measuring a performance parameter of the communication channel (column 3, lines 34-36); if the performance parameter of the communication channel indicates that the performance of the communication link is satisfactory (column 4, lines 30-34) (c) if the performance parameter of the communication channel indicates that the performance of the communication link is unsatisfactory, then comparing, in the receiver, a signal strength indicator of a communication signal from the transmitter to a

Art Unit: 2684

threshold (column 3, lines 42-45); if the signal strength indicator of the communication signal at the receiver satisfies the threshold, (column 4, lines 32-36); and if the signal strength indicator of the communication signal at the receiver fails to satisfy the threshold , then performing at least one of increasing the transmission power or reducing the user rate (column 4, lines 36-39).

Dicker does not specifically teach of when the channel bandwidth is less than a maximum allocatable bandwidth, then increasing the channel bandwidth at the transmitter; and of decreasing the bandwidth allocated to the communication channel between the transmitter and the receiver if the threshold is satisfied.

In related art concerning dynamic wireless multiplexing, Young teaches of when the channel bandwidth is less than a maximum allocatable bandwidth, then increasing the channel bandwidth at the transmitter; then decreasing the bandwidth allocated to the communication channel between the transmitter and the receiver if the threshold is satisfied (column 9, lines 37-46; where the dynamic bandwidth allocation increases or decreases as needed).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Dicker's performance parameter of the communication channel with Young's dynamic bandwidth allocation in order to allocate only the necessary resources to accomplish an acceptable performance.

Regarding claims 2 and 9, Dicker in view of Young teaches all the limitations according to claim 1. Dicker further teaches where the signal strength indicator is the RSSI (column 3, lines 43-45).

Regarding claim 3 and 10, Dicker in view of Young teaches all the limitations according to claim 1. Young further teaches where the step of increasing the bandwidth allocated to the communication channel comprises decreasing the coding rate applied to a communication signal at the transmitter (column 9, lines 37-46; where it is inherent in the art that the coding rate varies according to bandwidth allocation; e.g., "increases" "decreases").

Regarding claim 4 and 11, Dicker in view of Young teaches all the limitations according to claim 1. Young further teaches where the step of increasing the bandwidth allocated to the communication channel comprises decreasing the number of bits per symbol applied during modulation of a communication signal at the transmitter (column 9, lines 37-46; where it is inherent in the art that the number of bits is decreased or increased according to bandwidth allocation).

Regarding claim 5 and 12, Dicker in view of Young teaches all the limitations according to claim 1. Young also teaches where the step of decreasing the bandwidth allocated to the communication channel comprises increasing the coding rate applied to a communication signal at the transmitter (column 9, lines 37-46; where it is inherent in the art that the coding rate varies according to bandwidth allocation).

Regarding claim 6 and 13, Dicker in view of Young teaches all the limitations according to claim 1. Young also teaches where the step of decreasing the bandwidth allocated to the communication channel further comprises increasing the number of bits per symbol applied during modulation of a communication signal at the transmitter

(column 9, lines 37-46; where it is inherent in the art that the number of bits is decreased or increased according to bandwidth allocation).

Regarding claim 7 and 14, Dicker in view of Young teaches all the limitations according to claim 1. In addition, Dicker teaches where the step of increasing the bandwidth allocated to the communication channel comprises decreasing the transmission power (column 4, lines 41-45).


Art Unit: 2684

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.


Angelica Perez
(Examiner)


NAY MAUNG
SUPERVISORY PATENT EXAMINER

Nay A. Maung
(SPE)

Art Unit 2684

March 19, 2004